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No. 9-M
MOLASSES
ISSUE

COMPARISON OF PRICES OF 2½ GALLONS BLACKSTRAP MOLASSES
(FOB TANKCAR, NEW YORK) AND .4 BUSHEL No. 3 YELLOW CORN
(DELIVERED NEW YORK) WITH PRICE OF A GALLON OF ETHYL
ALCOHOL (190 PROOF, TANKCAR, NEW YORK)

MONTHLY, JANUARY 1935 TO DATE 1/



With the exception of short periods in late 1941, early 1948 and early 1949, molasses raw material costs have been less than alcohol prices since 1935. On October 13, 1950 they were far below non-contract alcohol prices. The price of alcohol on that date on the east coast exceeded the delivered price of 4/10 bushel of No. 3 corn by almost 14 cents. Only in a few instances, most of 1942 and 1943 and for a few months in 1946 and 1947, have grain raw material costs been less than the price of ethyl alcohol. Although molasses is still the cheapest raw material, corn may be used economically during the current period of short molasses supplies and strengthened demand for ethyl alcohol for military use.

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INDUSTRIAL MOLASSES SUPPLIES AND UTILIZATION

The recent short supply situation in the molasses market and the heavy demand for raw materials for production of ethyl alcohol for use in the synthetic rubber program have resulted in many requests for information on molasses supplies and utilization. Comments which follow present an analysis of the present supply-utilization situation and estimates for the coming year. This report also contains statistical series on industrial molasses supplies, and the utilization of molasses for alcohol, livestock feed, yeast, vinegar, and citric acid.

It now appears that four of the seven synthetic rubber units will be activated. Since each unit requires 30 million gallons of ethyl alcohol a year, present plans call for the utilization of 120 million wine gallons per year. References have been made to the possible activation of one of the remaining three units. This would increase alcohol requirements for synthetic rubber to 150 million wine gallons per year. The requirement of alcohol for synthetic rubber is, in addition to all other present uses. Approximately 165 million wine gallons of 190-proof alcohol were used last year for civilian industrial consumption.

A major question confronting the alcohol industry, the directors of the rubber program, the molasses producing and distributing trade, and the feed mixing and distributing trade is the determination as to how the additional alcohol may be obtained. A part of it may be imported but the remainder will have to be obtained from agricultural raw materials since synthetic capacity is fairly well fixed. It is evident that there is a sufficient supply of agricultural raw materials to make the required quantity of alcohol. Molasses supplies in relation to requirements, even if molasses for alcohol for the synthetic rubber program is excluded, are much shorter now than at any other time during the past 3 years. Molasses prices were almost four times as high in October 1950 as in June 1949. There is evidence that the combined stocks of molasses in the United States, Cuba and Puerto Rico are below those of previous years. The entire 1950 Cuban crop of molasses, plus 46 million gallons of carryover from the 1949 crop, had been sold by June 1. The supplies purchased by United States distributors and users have been shipped at a rapid rate - from 35 to 40 million gallons per month. The Puerto Rican crop has been sold to dealers in the United States mainland and Puerto Rico. Trade sources say that the Puerto Rican supply has moved into industry. The Hawaiian supply is used primarily on the West Coast and is not counted on to supply East and Gulf Coast users and distributors. There will be no carryover of molasses into the new crop year in any of our supplying areas. In fact, trade sources predict a drying up of supplies before new crops are available.

Of the quantity of about 239 million gallons of molasses expected to be available for alcohol production during the fiscal year 1951, it is assumed that 20 million gallons will be used for butanol and acetone and 219 million gallons for ethyl alcohol. This would permit production of about 88 million wine gallons of ethyl alcohol from molasses during the year, or about 31 million gallons more than the quantity produced from molasses during fiscal year 1950. However, since new-crop Caribbean molasses supplies will not be available in volume until late February 1951, it is highly improbable that ethyl alcohol production

from molasses during the fiscal year 1951 will reach 88 million gallons. Moreover, such rate of utilization would exhaust supplies of molasses by late summer 1951. Actually, all the estimated alcohol requirements could not possibly be obtained by use of the prospective blackstrap molasses supply during the coming year. Assuming 103 million gallons will be obtained from synthetic sources and 5 million gallons from miscellaneous sources and imports, approximately 450 million gallons of molasses would be required to produce the remaining requirements. The 481 million gallons of molasses estimated as being the total supply available during the 12-month period ending June 30 includes 70 million gallons of beet and citrus molasses and hydrol. Because of marketing cost and technical production problems, it is highly unlikely that distillers could use these types of molasses. Therefore, blackstrap molasses supplies would fall approximately 40 million gallons short of the amount required to meet total alcohol requirements, even if all blackstrap molasses supplies were diverted from feed, yeast, citric acid and other uses.

The estimated supplies of blackstrap and other molasses for fiscal years 1950 and 1951, by source, are as follows:

Blackstrap and other molasses from	Year ending June 30	
	1950	1951
	(million gallons)	
Cuba	196	140
Puerto Rico	45	45
Hawaii	43	43
Mexico	21	25
Dominican Republic	17	17
Europe (beet) and miscellaneous	17	25
Total offshore	339	295
Mainland cane mills	38	40
Cane sugar refiners	33	33
Hydrol	18	20
Citrus	12	12
Beet	34	38
Total mainland	135	143
From mainland stocks	--	43
Total - all sources	474	481

The following data on the utilization of molasses in the fiscal year 1950 were developed by using published statistics covering molasses utilization in alcohol plants and by estimating all other uses including feed. The procedure for the fiscal year 1951 was to estimate uses other than alcohol and show a residual quantity available for use in alcohol plants. These estimates appear below:

Molasses used for:

Year ending June 30

1950 1951

(million gallons)

Ethanol	129	239
Butanol and acetone	20	--
Spirits and rum	2	2
Feed	225	185
Yeast, vinegar and citric acid	49	49
Edible and miscellaneous	6	6
Increase in mainland stocks	43	--
Total utilization	474	481

The following data give the source of ethyl alcohol production during fiscal year 1950 and the utilization of the production during that year. Later in the discussion, the 1949-50 utilization data are taken to indicate peacetime demands.

Source	Estimated Ethyl Alcohol Production 1949-50 (million wine gallons)
--------	--

Synthetic (capacity, 120)	103
Molasses	57
Miscellaneous	5
	165

Utilization	Estimated Ethyl Alcohol Utilization 1949-50 (million wine gallons)
-------------	---

Aldehydes	72
Other chemicals	31
Solvents	51
Anti-freeze	14
Explosives	1 1/2
Synthetic rubber	3
Miscellaneous	2 1/2
	165

The tremendous increase in molasses utilization in feedstuffs during the past 3 years has been due in part to increased investment in molasses handling facilities and to increased sales effort on the part of the molasses distributing trade, to new investments in processing facilities allowing feed mixers to use molasses or increase the quantity used in mixes, and to better marketing practices resulting in lower consumer prices. Another important influence has been the low cost of molasses as a feed ingredient as compared to corn and other grains. Table D shows the advantage of feeding molasses in place of grain.

The carbohydrate value of 6-1/2 gallons of molasses is estimated to be equal to 1 bushel of corn. This ratio takes into consideration only the actual feed value and does not consider the other important advantages of molasses as a feed ingredient or as a silage preservative.

To the molasses producers the sharp expansion in the use of molasses for livestock feed increased the demand for their product and offered a continuing market for supplies which in the future might become unmarketable to the fermentation alcohol industry, in view of the increased production of synthetic alcohol. Farmers and feed dealers use molasses to add palatability to feeds, even those of best quality, to salvage feeds which could not otherwise be used effectively, to preserve grass silage, and to provide carbohydrate feed value. The very low price of molasses in the past year further stimulated its use for feeding and feed dealers and farmers have made large investments in molasses mixing equipment. It is doubtful that temporary increases in molasses prices to the level where the delivered price of 6-1/2 gallons is equal to or slightly greater than the cost at the place of utilization of a bushel of corn would greatly reduce the use of molasses for livestock feed. Farmers and feed dealers would find it necessary to weigh the increased cost for molasses against the value of the feed that might be lost through failure to use molasses. Moreover, it is not feasible for feed dealers to change their formulas often merely to take advantage of short-run price changes. Since molasses constitutes only about 10 percent of most mixes in which it is used, it is probably that moderate increases in molasses costs would be absorbed by feed dealers or farmers, or both. The areas in which the greatest reduction in molasses utilization for feeds would probably occur would be that used for direct feeding and in feeds in which very high percentages of molasses, 20 percent or more, are used when molasses is low in price relative to corn.

Supplies of grain are sufficient to meet the additional alcohol needs. To produce 100 million gallons of alcohol would require 40 million bushels of grain, (chiefly corn, grain sorghums, and barley for malt) or 3-1/2 million bushels a month. Off-grade grain, damaged and with high moisture content, and in many cases unfit for human consumption, can be used for the production of industrial alcohol as efficiently as the better quality grain and at a much lower cost. Although frost damage to corn has not been extensive a substantial part of this year's crop in the corn belt is damaged or of high moisture content. Northern and central Iowa and parts of adjacent states - Nebraska, South Dakota, Minnesota, Wisconsin - have been most affected. A billion bushels of corn are grown in these five states and as much as 10 percent of the crop may be of low quality. It is quite possible, therefore, that distillers will be able to purchase large quantities of corn during the late fall and winter months at a discount under the price of number 2 corn.

Grain sorghums appear to have been the first choice of distillers of industrial alcohol on the Atlantic seaboard to date this year. This grain can be shipped from Texas gulf ports by boat at a lower cost than grain shipped by rail from the Midwest. The crop which is 32 million bushels larger than last year is

maturing later than usual. Some of these grain sorghums will undoubtedly be available at discount prices because of damage and poor storing quality. A total of 40 to 50 million bushels may easily be available for alcohol production without interfering with the feed grain supplies.

Grain sorghums have been selling below support prices. The price on October 13, 1950, at Kansas City was \$2.02 per cwt. as compared with a support price of \$2.35. The full weight of the crop is not yet on the market. The current price discount below the support level is attributed to the near-record crop, a shortage of storage space, the high moisture problem, and the large supply of other feed grains. The cash market discounts high moisture in grain sorghums about one cent for each quarter of a percent of moisture above 13 percent. Grain sorghums also will be available in large quantities at Galveston and Houston, Texas. Although the support price of \$2.42 per cwt. at the Gulf is higher than at Kansas City, there have been times during the past year when the market price was lower at the Gulf ports.

In addition to grain supplies, there is a very large surplus of 1950-crop potatoes which the Department of Agriculture will be required to purchase under the price support program. Approximately 1 gallon of alcohol can be produced from 100-120 pounds of potatoes. It is estimated that the total surplus after October 1, 1950, may amount to 60 million cwt., with 30 million available for alcohol production, 65 percent located in Maine; 30 percent in Michigan, Wisconsin, Minnesota, and North Dakota; and 5 percent in Colorado. Current useful outlets for such surplus potatoes are small in relation to the size of the surplus. A major portion of the total surplus would be available for utilization as alcohol. Large scale purchases of potatoes currently are being made and will continue through March and April 1951.

Freight rate adjustments have been granted by railroads in the past for the shipment of very heavily loaded bulk cars of potatoes to alcohol plants. It is possible that similar reductions could be obtained again. Also, smaller alcohol plants located in or near the potato production areas may find that surplus potatoes are their most economical raw material for alcohol.

In addition to the supplies available under the price support program, other potatoes are also available in the open market in areas adjacent to many alcohol plants.

Clearly there will be sufficient agricultural raw materials available to meet the additional alcohol requirements for the synthetic rubber program. Certain estimates may be made concerning relative costs of using corn and molasses as raw materials for ethyl alcohol. It takes about 2.5 gallons of molasses to make one wine gallon of ethyl alcohol. One bushel of corn will make approximately 2.5 gallons. Therefore, raw material costs are equated when the price of 6-1/4 gallons of molasses equals 1 bushel of corn. In Table A estimates are made of the price of alcohol resulting from a given price of corn and the

corresponding price molasses fermenters can pay for their raw material. In computing the price of alcohol from varying corn prices, an estimated conversion cost of 14 cents per wine gallon of alcohol was used. The assumption that malt costs are offset by feed and other by-products credits was also made. Conversion costs for molasses distillers are estimated at 8 cents per wine gallon of alcohol. These data take into consideration only raw material and conversion costs and do not cover delivery costs and profits. Present price quotations of non-contract ethyl alcohol are about 85 cents per gallon delivered east of the Mississippi River. Allowing 7 cents for sales and delivery costs, the "at works" price would be 78 cents. This corresponds to a delivered price of \$1.60 per bushel for corn and 28 cents per gallon for molasses. Although No. 3 corn on the East Coast on October 13, 1950, was \$1.78 per bushel, damaged corn might sell at a substantial discount. An "at works" price of 79 cents per gallon for ethyl alcohol converts to a delivered price of \$2.85 per cwt. for grain sorghum.

Table A

ESTIMATED PRICE OF ALCOHOL RESULTING FROM A GIVEN PRICE
OF CORN AND MOLASSES

Price of corn at alcohol plants (cents per bushel)	Price of molasses at alcohol plants (cents per gallon)	Price of alcohol at works (cents per gallon)
.80	15.2	.46
.90	16.8	.50
1.00	18.4	.54
1.10	20.0	.58
1.20	21.6	.62
1.30	23.2	.66
1.40	24.8	.70
1.50	26.4	.74
1.60	28.0	.78
1.70	29.6	.82
1.80	31.2	.86
1.90	32.8	.90
2.00	34.4	.94
2.10	36.0	.98
2.20	37.6	1.02

A comparison of molasses and corn raw material costs with the price of alcohol also shows the feasibility of utilizing corn in the production of ethyl alcohol during the coming year. Although corn is still more expensive than molasses as an ethyl alcohol raw material, the price of alcohol has exceeded the cost of 4/10 bushel of corn during the last 2 months. By the middle of October, alcohol prices exceeded corn raw material costs by almost 14 cents and molasses raw material costs by 22.5 cents. Table B shows that molasses raw material costs have been less than alcohol prices during the almost 16-year period presented and at present are far below non-contract alcohol prices. The data show that the grain price was lower than that of ethyl alcohol in only three years, 1942, 1943 and 1947.

Table B COMPARISON OF COSTS OF CORN AND MOLASSES AS RAW MATERIAL WITH THE PRICE OF ETHYL ALCOHOL

Year	Price per wine gal. of ethyl alcohol	Price of 2-1/2 gallons of molasses	Price of alcohol minus molasses raw material cost	Price of 4/10 bushel of corn	Price of alcohol minus grain raw material cost
1935	29.8	20.3	/ 9.5	39.2	- 9.4
1936	27.1	19.6	/ 7.5	39.2	-12.1
1937	25.5	18.0	/ 7.5	46.0	-20.5
1938	23.7	16.7	/ 7.0	27.6	- 3.9
1939	19.4	12.4	/ 7.0	25.8	- 6.4
1940	21.7	16.4	/ 5.3	31.2	- 9.5
1941	25.9	24.2	/ 1.7	34.4	- 8.5
1942	52.0 1/	42.0 2/	/10.0	39.8	/12.2
1943	50.3 1/	46.2 2/	/ 4.1	48.0 3/	/ 2.3
1944	50.0 1/	46.2 2/	/ 3.8	52.2 3/	- 2.2
1945	50.7 1/	46.2 2/	/ 4.5	54.0 3/	- 3.3
1946	59.7 1/	46.2 2/	/13.5	69.0 3/	- 9.3
1947	91.6	60.3 2/	/31.3	90.6	/ 1.0
1948	80.7	74.5	/ 6.2	90.7	-10.0
1949	26.0	22.6	/ 3.4	62.4	-36.4
1950					
Jan.	29.0	20.0	/ 9.0	61.5	-32.5
Feb.	29.0	20.0	/ 9.0	61.8	-32.8
Mar.	32.0	20.0	/12.0	63.4	-31.4
Apr.	35.0	20.0	/15.0	67.2	-32.2
May	35.0	21.0	/14.0	69.2	-34.2
June	37.0	27.2	/ 9.8	68.5	-31.5
July	39.0	33.0	/ 6.0	71.8	-32.8
Aug.	39.0	37.5	/ 1.5	71.2	-32.2
Sep.	45.0 to 75.0	47.0	-2.0 to /28.0	71.3	-26.3 to /3.7
Oct 13	85.0	62.5	/22.5	71.4	/13.6

1/ Prices controlled from January 1942 to November 1946.

2/ Prices controlled from January 1942 to March 1947.

3/ Prices controlled from March 1943 to November 1946.

The most recently quoted price of 25 cents per gallon for molasses at New York may reflect, in part at least, the pull of recent quotations for industrial alcohol on prices of molasses. It is also significant that at 25 cents per gallon, molasses containing 52 percent sugar, equivalent to 6-1/4 pounds of sugar per gallon, would have a sugar value of 4 cents per pound. The price of new crop No. 4 Contract (world) sugar futures on the New York market has declined in recent weeks and on October 17 ranged from 4.35 to 4.41 cents per pound.

Table C

ESTIMATED UTILIZATION OF INDUSTRIAL MOLASSES IN THE U.S. MAINLAND,
FISCAL YEAR 1935-39 AVERAGE AND 1943-50 BY YEARS. (MILLION GALLONS)

Industrial molasses utilization in:	Year ended June 30									
	1935-39	1943	1944	1945	1946	1947	1948	1949	1950	
Industrial alcohol plants for:										
Ethyl alcohol	177.1	171.4	249.6	224.7	103.4	70.3	175.9	155.3	129.1	
Products other than ethyl alcohol	20.7	12.5	54.5	43.0	30.3	27.9	19.8	13.7	20.0	
(butyl alcohol and acetone primarily)										
Total for industrial alcohol	197.8	183.9	304.1	267.7	133.7	98.2	195.7	169.0	149.1	
In distilleries (spirits & rum)	5.4	8.7	11.1	10.6	8.3	3.1	2.6	5.1	2.2	
Total in alcohol plants and distilleries 1/	203.2	192.6	315.2	278.3	142.0	101.3	198.3	174.1	151.3	
Livestock feed, direct feeding, and silage 2/	131.9	66.1	76.2	84.0	97.7	130.5	167.4	198.5	225.0	
Other uses										
Yeast, citric acid, and vinegar	38.0	38.5	41.2	47.3	46.6	51.0	51.0	51.0	49.0	
Edible sirup and molasses and misc.	6.0	15.7	9.0	10.3	21.8	11.4	8.3	7.5	6.0	
Total other uses 3/	44.0	54.2	50.2	57.6	68.4	62.4	59.3	58.5	55.0	
Total utilization	379.1	312.9	441.6	419.9	308.1	294.2	425.0	431.1	431.3	

1/ Data are from the Alcohol Tax Unit, Bureau of Internal Revenue.

2/ Data from 1935-39 and 1947-49 are estimated by subtracting molasses used in alcohol plants and distilleries and an estimate of "other uses" from total mainland molasses supplies and using the residual as molasses utilized in feeds. No changes in stocks were considered. Information from 1943-46 from data issued by U.S. Tariff Commission. 1950 data estimated by the Sugar Branch.

3/ Data from 1935-39 and 1947-50 estimated by Sugar Branch and 1943-46 from U.S. Tariff Commission.

Table D INDUSTRIAL MOLASSES, MAINLAND PRODUCTION, INSHIPMENTS AND IMPORTS INTO THE UNITED STATES
MAINLAND, FISCAL YEARS 1935-50. (1000 Gallons)

Year Ended June 30	Mainland Cane 1/	Domestic Beet 2/	Refiners' Blackstrap 3/	Citrus 4/	Hydrol 5/	TOTAL MAINLAND PRODUCTION
1935	15,686	24,900	29,814	-	8,600	79,000
1936	23,380	25,400	28,863	-	10,100	87,743
1937	31,061	24,700	29,245	-	9,900	94,906
1938	33,531	26,400	25,619	-	9,800	95,350
1939	40,506	27,200	29,299	-	10,900	107,905
1940	31,716	24,800	27,972	-	11,200	95,688
1941	21,476	26,520	32,386	-	15,600	95,982
1942	26,052	21,763	28,398	-	18,300	94,513
1943	26,601	26,058	22,704	-	17,200	92,563
1944	33,184	23,415	32,744	2,554	16,300	108,197
1945	34,116	35,562	35,329	3,394	15,800	124,201
1946	32,165	40,861	25,389	7,783	15,400	121,598
1947	26,404	45,056	27,504	10,226	18,700	127,890
1948	27,076	35,886	33,677	11,609	16,900	125,148
1949	40,464	31,539	33,581	7,311	17,600	130,495
1950	37,722	33,726	33,433	12,000	18,000	134,881

1/ 1935-47 from "World Sugar Situation", Bureau of Agricultural Economics, USDA, Sept. 1949, 1948-50 from unpublished data of Sugar Branch, FMA.

2/ 1935-40 estimated. 1940-50 are reports submitted by beet sugar companies to the Sugar Branch, 1949-50 is estimated.

3/ 1935-47 estimated by multiplying the refiners' production of sugar (short tons, raw value) by 6.25; 1948-50 from reports submitted to the Sugar Branch, FMA.

4/ Obtained from records of the Florida Citrus Processors Association, 1949-50 production estimated.

5/ Estimated by multiplying dextrose production by a constant, assuming 28 pounds of hydrol per 100 pounds of dextrose. Pounds converted to gallons on a basis of 170.2 gallons per ton. 1949-50 production estimated.

(Continued)

INDUSTRIAL MOLASSES, MAINLAND PRODUCTION, INSHIPMENTS AND IMPORTS INTO THE UNITED STATES
MAINLAND, FISCAL YEARS 1935-50. (1000 Gallons)Table D
(continued)

Year Ended June 30	Cuba 6/	Dominican Republic 6/	Dutch Indies 6/	Mexico 6/	Hawaii 7/	Puerto Rico 6/	Other 6/8/	Total Imports & Inshipments	TOTAL MARKET SUPPLIES
1935	-	-	-	-	-	-	-	312,500	391,500
1936	-	-	-	-	-	-	-	251,500	339,243
1937	246,757	22,712	11,265	-	21,246	25,994	31,236	359,300	454,206
1938	162,636	16,890	18,889	-	35,251	28,892	18,842	281,400	376,750
1939	133,864	22,105	5,845	1,340	24,993	20,716	17,037	225,900	333,805
1940	210,573	19,998	-	3,998	28,389	20,562	5,477	288,997	384,685
1941	279,889	37,043	-	6,973	41,494	17,478	7,453	390,330	486,312
1942	296,495	17,091	-	7,585	38,625	23,433	5,293	388,522	483,035
1943	135,133	1,463	-	4,597	44,405	3,255	2,779	191,632	284,195
1944	250,614	25,692	-	1,826	43,850	19,049	7,944	348,975	457,172
1945	170,189	28,968	-	-	37,261	13,384	5,961	255,763	379,964
1946	67,043	13,315	-	5,500	38,041	19,696	6,099	149,694	271,292
1947	65,339	23,033	-	16,048	30,492	23,786	7,607	166,305	294,195
1948	158,460	19,118	-	29,672	43,796	41,133	7,679	299,858	425,006
1949	160,202	17,287	-	28,616	41,327	41,133	12,234	300,799	431,294
1950	196,389	16,964	-	20,613	43,299	44,656	17,119	339,042	473,923

6/ Summarized from Bureau of Customs data and reports from the Department of Commerce.

7/ 1935-47 from published data Department of Commerce. 1948-50 data furnished by Hawaiian Sugar Producers Association.

8/ Includes shipments from Canada, Poland, Peru, Java, Netherlands, Haiti, British West Indies, Trinidad, Italy, and Denmark.

Table E PRODUCTION OF INDUSTRIAL MOLASSES, IMPORTS AND INSHIPMENTS TO THE UNITED STATES
MAINLAND, THE PORTION OF THE PRODUCTION NOT SHIPPED TO THE
UNITED STATES MAINLAND, BY PRINCIPAL OFFSHORE AREAS SUPPLYING
THE UNITED STATES MAINLAND. CALENDAR YEARS 1935-1949 AND PRELIMINARY 1950 (1000 GALLONS)

		CUBA		PUERTO RICO	
1/ Year	2/4/ Production	Imports 5/ into the United States Mainland	Production minus Imports in- to the U.S. Mainland	Inshipments 5/ to the United States Mainland	Production minus in- shipments into U.S. Mainland
1935	182,080	176,525	5,555	52,728	13,872
1936	243,519	184,282	59,237	25,749	15,651
1937	357,610	237,272	120,338	27,962	13,238
1938	234,166	131,240	102,926	19,304	27,296
1939	250,753	160,386	90,367	21,034	13,466
1940	302,992	238,896	64,096	26,263	17,937
1941	439,953	348,964	90,989	18,492	21,808
1942	332,230	194,031	138,199	12,098	39,302
1943	139,543	145,220	5,677	10,025	30,175
1944	453,914	249,583	204,331	17,632	10,568
1945	194,741	113,614	81,127	16,268	24,132
1946	233,650	57,968	175,682	17,287	21,113
1947	299,400	105,387	194,013	31,956	18,844
1948	332,000	139,258	192,742	44,810	9,990
1949	291,599	161,872	129,727	43,589	15,686
1950	262,365 7/	152,965 8/	109,400 8/	21,730 8/	27,792 8/

1/ The import and inshipment data relate to calendar years.

2/ Crop-year basis, the processing season extending from January through June.

3/ Processing in Hawaii takes place in each month of the year and is reported on a calendar year basis.

4/ Data are from "World Sugar Situation" BAE, September 1949 and from reports by the Cuban Sugar Stabilization Institute.

5/ Summarized from Customs' sheets and reports from the Department of Commerce.

6/ Data are from "Annual Report of the President, Association of Sugar Producers of Puerto Rico."

7/ Preliminary 1950.

8/ January through June, 1950.

(Continued)

Table E (continued) PRODUCTION OF INDUSTRIAL MOLASSES, IMPORTS AND INSHIPMENTS TO THE UNITED STATES
MAINLAND, THE PORTION OF THE PRODUCTION NOT SHIPPED TO THE
UNITED STATES MAINLAND, BY PRINCIPAL OFFSHORE AREAS SUPPLYING.
THE UNITED STATES MAINLAND. CALENDAR YEARS 1935-1949 AND PRELIMINARY 1950 (1000 GALLONS)

HAWAII									
TOTAL ALL AREAS									
Year	1/ 3/9/ Production	Inship- 10/ ments to the minus United States Mainland		Production Mainland		Imports and Inshipments to the U.S. Mainland		Production minus imports and inshipments to the U.S. Mainland	
1935	42,665	28,570	14,095	291,345	257,823	33,522			
1936	46,469	21,232	25,237	331,388	231,263	100,125			
1937	45,327	31,015	14,312	444,137	296,249	147,888			
1938	48,291	28,141	20,150	329,057	178,685	150,372			
1939	44,743	28,979	15,764	329,996	210,399	119,597			
1940	45,342	31,842	13,500	392,534	297,001	95,533			
1941	49,344	45,441	3,903	529,597	412,897	116,700			
1942	47,004	36,839	10,165	430,634	242,968	187,666			
1943	50,390	49,805	585	230,133	205,050	25,083			
1944	46,659	38,531	8,128	528,773	305,746	223,027			
1945	44,769	36,942	7,827	279,910	166,824	113,086			
1946	36,121	32,226	3,895	308,171	107,481	200,690			
1947	48,768	37,461	11,307	398,968	174,804	224,164			
1948	43,515	44,483	968	430,315	228,551	201,764			
1949	45,770	42,523	3,247	396,644	247,984	148,660			
1950	20,022 8/	18,734 8/	1,288 8/	331,909 7/	193,429 8/	138,430 8/			

2/ 1935-48 supplied by the California and Hawaiian Sugar Corporation, Ltd.; 1949 and 1950 by the Hawaiian Sugar Planters Association.

10/ Data supplied by the Hawaiian Sugar Planters Association.

Table F

RELATIONSHIPS BETWEEN THE NEW YORK CORN-
MOLASSES PRICE AND THE ESTIMATED VOLUME OF UTILIZATION
OF INDUSTRIAL MOLASSES IN FEED, FISCAL YEARS 1935-50.

Year ended June 30	Price of 1 bushel of corn minus the price of 6 $\frac{1}{2}$ gals. of molasses (cents)	Estimated Molasses utilization in livestock feeding (million gallons)
1935	+ 49.8	141.3
1936	+ 33.5	104.5
1937	+ 76.0	171.9
1938	+ 40.1	138.7
1939	+ 26.7	103.7
1940	+ 33.1	94.2
1941	+ 33.9	153.4
1942	+ 2.4	97.3
1943	- 6.7	66.1
1944	+ 6.2	76.2
1945	+ 11.4	84.0
1946	+ 14.9	97.7
1947	+ 62.2	130.5
1948	+ 55.5	167.4
1949	+ 70.6	198.5
1950	+ 103.9	225.0
October 13, 1950	+ 16.3	-

Source: 1935-49 from Kutish, L. John, Marketing of Feed Molasses, Sugar Branch, PMA, USDA., February 1950, Table 6, page 10. Hydrol and citrus molasses is added for the above period. 1950 corn prices are from Division of Historical and Statistical Research, BAE.

1/ 6 $\frac{1}{2}$ gallons of molasses is the carbohydrate equivalent of 1 bushel of corn.

2/ Corn prices controlled March 1943-Nov. 1946; molasses Jan. 1942-March 1947.

Table G
MOLASSES, BLACKSTRAP; PRICE PER GALLON¹/F.O.B. TANK CAR NEW YORK, MONTHLY,
JANUARY 1935-OCTOBER 1950 (CENTS)

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1935	7.62	7.62	8.12	8.20	8.25	8.25	8.25	8.25	8.25	8.25	8.25	8.25
1936	8.25	8.25	8.25	8.25	8.25	8.25	8.25	7.55	7.25	7.25	7.25	7.25
1937	7.25	7.25	7.25	7.25	7.25	7.25	7.25	7.25	7.19	7.00	7.00	7.00
1938	7.00	7.00	7.00	7.00	6.70	6.50	6.50	6.50	6.50	6.50	6.50	6.50
1939	6.50	6.50	4.50	4.50	4.50	4.50	4.50	4.50	5.25	5.75	5.75	5.75
1940	5.75	5.75	5.75	5.75	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00
1941	7.00	7.00	7.25	7.88	8.20	8.50	9.25	9.50	10.25	12.80	13.44	15.19
1942	16.50	16.50	16.50	16.50	16.50	16.50	16.50	16.50	16.50	16.50	18.00	18.50
1943	18.50	18.50	18.50	18.50	18.50	18.50	18.50	18.50	18.50	18.50	18.50	18.50
1944	18.50	18.50	18.50	18.50	18.50	18.50	18.50	18.50	18.50	18.50	18.50	18.50
1945	18.50	18.50	18.50	18.50	18.50	18.50	18.50	18.50	18.50	18.50	18.50	18.50
1946	18.50	18.50	18.50	18.50	18.50	18.50	18.50	18.50	18.50	18.50	18.50	18.50
1947	18.50	18.50	18.50	30.50	23.70	22.38	21.75	22.30	23.25	25.70	30.38	34.12
1948	37.00	37.00	37.00	37.00	37.00	34.44	26.60	25.50	24.00	21.20	20.50	20.50
1949	15.25	9.75	9.00	8.70	8.25	8.25	8.25	8.25	8.25	8.25	8.25	8.10
1950	8.00	8.00	8.00	8.00	8.40	10.90	13.20	15.00	19.00	25.00		

¹/ Prices were controlled from January 1942-March 1947.

Source:

Jan. 1935--August 1950 compiled by Bureau of Agricultural Economics from Oil, Paint and Drug Reporter; September and October from other trade reports.

1/
Table H INDUSTRIAL MOLASSES USED IN THE PRODUCTION OF ETHYL ALCOHOL AND
OTHER PRODUCTS OF INDUSTRIAL ALCOHOL PLANTS AND DISTILLED SPIRITS IN
DISTILLERIES, FISCAL YEARS 1935-50 (GALLONS)

Year ended June 30	Industrial molasses used in the production of--			Total usage of industrial molasses in industrial alcohol plants and distilleries
	Ethyl alcohol	Other products of industrial alcohol plants	Distilled spirits	
	2/	3/	4/	
1935....	187,849,299	11,378,631	7,418,832	206,644,762
1936....	173,385,873	13,075,949	5,737,208	192,199,030
1937....	202,631,056	32,472,450	5,239,860	240,543,166
1938....	162,557,843	27,987,171	4,164,633	194,709,647
1939....	158,908,347	18,841,142	4,314,729	182,064,218
1940....	194,601,378	43,544,144	4,328,001	242,473,523
1941....	221,820,392	59,602,277	3,528,327	284,950,996
1942....	281,082,026	51,494,017	5,091,586	337,667,629
1943....	174,368,827	15,020,815	8,670,107	198,059,749
1944....	252,802,147	56,800,846	11,086,768	320,689,781
1945....	232,175,077	46,281,165	10,610,766	289,067,008
1946....	109,258,237	30,272,711	8,261,498	147,792,446
1947....	70,310,252	27,945,575	3,072,209	101,328,036
1948....	175,947,462	19,768,298	2,554,650	198,270,410
1949....	156,731,884	13,652,330	2,622,888	173,007,102
1950....	129,110,565	20,000,000 5/	2,217,661	151,328,226

1/ Includes Invert molasses from 1935-44.

2/ Includes "molasses mixtures" used in making ethyl alcohol.

3/ Chiefly butyl alcohol and acetone.

4/ Chiefly rum and gin.

5/ Estimated by the Sugar Branch.

Source: Annual Report of the Commissioner of Internal Revenue, U. S. Treasury Department and Monthly Reports of the Alcohol Tax Unit, Bureau of Internal Revenue.

Table I
QUANTITY OF ETHYL ALCOHOL PRODUCED IN INDUSTRIAL ALCOHOL PLANTS FROM SPECIFIED RAW MATERIALS, FISCAL YEARS ENDED JUNE 30, 1935-50. (WINE GALLONS)

Year	From Molasses 1/		From ethyl sulphate		From Grain 2/		From all other materials 3/		Total net 4/ ethyl alcohol production, all sources	
	Quantity	Pct.	Quantity	Pct.	Quantity	Pct.	Quantity	Pct.	Quantity	Pct.
1935	81,283,647	85.49	9,254,836	9.73	2,600,514	2.74	1,937,804	2.04	95,076,801	100.00
1936	78,609,660	76.15	16,573,258	16.06	7,270,723	7.04	770,696	.72	103,224,337	100.00
1937	88,954,368	75.73	17,836,360	15.18	9,816,814	8.36	856,265	.73	117,463,807	100.00
1938	77,383,398	73.13	18,616,922	17.59	9,645,318	9.12	161,657	.16	105,807,295	100.00
1939	71,491,731	67.57	25,243,955	23.86	8,178,930	7.73	884,094	.84	105,798,710	100.00
1940	87,951,759	68.56	32,215,848	25.12	7,356,025	5.73	754,137	.59	128,277,769	100.00
1941	110,750,952	70.41	36,790,948	23.39	9,227,601	5.87	517,564	.33	157,287,065	100.00
1942	152,313,584	68.98	47,692,241	21.60	20,304,410	9.19	514,294	.23	220,824,529	100.00
1943	83,784,007	43.65	50,915,269	26.53	56,766,754	29.57	480,804	.25	191,946,834	100.00
1944	109,222,541	35.12	59,859,750	19.25	108,554,233	34.90	33,378,769	10.73	311,015,293	100.00
1945	100,105,881	29.26	58,778,288	17.18	148,260,547	43.33	35,007,856	10.23	342,152,572	100.00
1946	45,851,801	26.45	67,109,210	38.71	55,243,615	31.86	5,156,906	2.98	173,361,562	100.00
1947	28,504,588	21.77	70,160,794	53.58	20,917,073	15.97	11,364,199	8.68	130,946,654	100.00
1948	74,909,698	42.83	73,804,253	42.21	18,240,943	10.43	8,173,616	4.53	175,128,510	100.00
1949	67,047,454	36.29	86,720,595	46.94	6,037,313	3.27	24,939,569	13.50	184,744,931	100.00
1950	56,873,033	34.46	89,671,725	54.34	1,341,493	.81	17,135,192	10.39	165,021,443	100.00

1/ Additional amounts of alcohol were made from "molasses mixtures"; such alcohol is included in the "From All Other Materials" column.

2/ Additional amounts of alcohol were made from "grain mixtures"; such alcohol is included in the "From All Other Materials" column.

3/ Chiefly sulphite liquors, cellulose pulp, chemical and crude alcohol mixtures, whey, pineapple juice, grain and molasses mixtures, and potatoes and potato products. Potatoes were important when they produced, in 1946 - 1,985,102 wine gallons of ethyl alcohol, in 1947 - 6,769,117 wine gallons, in 1948 - 2,560,402 wine gallons, and in 1949 - 11,321,637 wine gallons.

4/ Gross production of ethyl alcohol minus the number of wine gallons of unfinished products used in re-distillation. This factor was not an important element until 1942.

5/ Includes 14,259,167 wine gallons from ethylene gas.

Source: "Statistics on Alcohol," Alcohol Tax Unit, Bureau of Internal Revenue, converted from proof gallons, of 100 proof to wine gallons of 190 proof by Sugar Branch, BMA.

Table J

ETHYL ALCOHOL: FISCAL YEAR WITHDRAWALS AND LOSSES,
PRODUCTION, AND STOCKS ON HAND AT END OF FISCAL
YEAR, INDUSTRIAL ALCOHOL PLANTS, 1935-50. (WINE GALLONS)

Fiscal Year Ended	W I T H D R A W A L S						Stocks June 30
	Tax-paid 1/	Used for Denatura- tion 2/	For Use Of the United States	Other Uses 3/	Losses 4/	Total Withdrawals Plus losses 5/	Production
June 30							
1935	8,942,614	85,794,610	1448,745	1,180,203	292,246	96,658,418	13,290,922
1936	12,659,225	90,778,272	523,018	1,270,413	230,974	105,461,904	11,210,703
1937	16,994,550	94,381,233	548,330	1,349,985	277,997	113,552,095	14,981,335
1938	15,250,844	86,454,306	500,400	1,414,731	276,252	103,896,533	16,866,646
1939	11,658,403	92,444,532	556,690	1,514,829	261,098	106,435,552	16,242,287
1940	12,812,790	117,537,719	644,476	1,542,218	261,207	132,798,410	11,472,921
1941	14,666,589	144,677,481	1,945,267	1,608,053	366,916	163,264,306	5,469,658
1942	13,122,282	197,242,208	22,799,641	1,612,611	433,818	235,210,560	15,270,663
1943	2,987,021	214,896,689	54,276,196	1,115,309	1,056,528	274,331,743	112,064,853
1944	3,251,946	512,336,521	64,419,908	1,231,806	888,696	582,128,877	67,326,076
1945	14,650,826	511,287,760	58,531,632	1,160,599	725,591	586,356,408	75,599,510
1946	24,875,343	207,083,385	6,711,245	1,379,022	596,476	240,645,471	58,178,404
1947	24,812,662	177,910,490	1,547,320	1,374,409	550,769	206,195,650	14,219,068
1948	20,399,153	178,764,046	149,709	1,810,407	472,517	201,595,832	20,143,869
1949	21,497,741	170,487,303	339,415	1,420,010	536,197	194,280,666	26,850,196
1950	21,349,931	169,321,932	305,910	2,230,184	526,316	193,734,273	12,225,645

1/ For beverage use.

2/ Represents withdrawals for denaturation 1934 through 1941. For 1942 through 1947 represents all products used for denaturation which were regarded, upon receipt at denaturation plants, as alcohol, whether originally produced as alcohol by industrial alcohol plants or as spirits or unfinished spirits by registered distilleries. This explains why the withdrawal data are so much larger than the production figures during the middle 1940's.

3/ Represents withdrawals for hospital, scientific, and educational use, for export, and in Puerto Rico for medicinal, beverage, and industrial use.

4/ Losses in industrial alcohol bonded warehouses, exclusive of losses in denaturing plants,

5/ See 2/

Source: "Statistics on Alcohol," Alcohol Tax Unit, Bureau of Internal Revenue, converted from proof gallons of 100 proof to wine gallons of 190 proof by Sugar Branch, FMA.

Table K PRODUCTION OF DENATURED ALCOHOL^{1/} INDUSTRIAL DENATURING PLANTS,
FISCAL YEARS 1935-50 (WINE GALLONS)

Fiscal year ended June 30	Specially denatured	Completely denatured	Total
1935	58,284,395	38,746,679	97,031,074
1936	64,955,485	36,522,358	101,477,843
1937	80,084,281	22,118,378	102,202,659
1938	69,009,024	25,598,717	94,607,741
1939	83,561,077	17,179,433	100,740,510
1940	111,409,797	15,352,033	126,761,830
1941	135,834,261	17,676,172	153,510,433
1942	179,217,153	28,628,181	207,845,334
1943	198,524,631	24,369,788	222,894,419
1944	471,781,825	52,331,761	524,113,586
1945	494,008,004	33,087,533	527,095,537
1946	186,657,673	26,144,437	212,802,110
1947	147,348,371	36,395,715	183,744,086
1948	149,394,037	34,887,789	184,281,826
1949	164,273,211	10,221,492	174,494,703
1950	170,259,919	4,414,053	174,673,972

Source: "Statistics on Alcohol," Alcohol Tax Unit, Bureau of Internal Revenue.

^{1/} Represents denatured alcohol produced from both domestic and imported alcohol.

Table L

USES OF SPECIALLY DENATURED ALCOHOL FROM INDUSTRIAL DENATURING
PLANTS, FISCAL YEARS 1935-49 (Wine Gallons)

Fiscal year ended June 30	Used as a Solvent 1/	Used as a raw material converted in chemical manufacturing 2/			Total Utilization
		Aldehydes	Synthetic rubber	Other Chemical Products	
1935 4/	-	-	-	-	-
1936 5/	63,407,973	16,650,777	-	28,607,288	109,133,841
1937 5/	79,018,340	27,160,082	-	32,458,847	139,109,095
1938 4/	-	-	-	-	-
1939 4/	-	-	-	-	-
1940 6/	46,238,101	24,572,238	-	33,209,336	108,364,633
1941	59,841,740	30,338,549	-	40,322,793	134,525,061
1942	86,390,613	34,402,948	-	40,354,169	169,237,400
1943	72,987,392	44,732,885	20,399,165	41,379,684	181,707,962
1944	66,310,074	59,730,282	286,033,171	52,202,416	465,993,050
1945	68,030,703	55,733,932	315,940,167	53,524,181	495,993,050
1946	50,897,999	54,018,723	62,671,789	27,800,474	196,383,320
1947	53,257,426	65,550,902	9,259,489	28,026,693	157,090,209
1948	47,016,052	72,932,439	370,818	28,493,876	149,842,717
1949	46,444,874	68,253,434	1,427,787	32,017,886	148,999,499

4/ No data available. No reports issued.

1/ Specially denatured alcohol used as a solvent is utilized principally in connection with the following products or uses: (a) Lacquers, varnishes, and enamels; (b) plastics; (c) solvents and thinners for cellulose, shellac, and resin products; (d) lotions, perfumes, and other toilet preparations, (e) the processing of industrial, food, drug, and other products, for instance the dehydration of nitrocellulose, (f) pharmaceutical products, such as rubbing alcohol, and (g) cleaning, preserving, and flavoring preparations.

2/ When used as a raw material, the denatured alcohol reacts in the formation of other chemicals. Principal products using denatured alcohol as a raw material are: aldehydes, synthetic rubber, vinegar, ethyl acetate, ethyl chloride, esters, ethers, ethylene dibromide, etc.

3/ This category includes: Brake fluids, cutting oils, other fluid uses, motor fuels and fuel uses, and experimental uses.

5/ Total quantities used, including large quantities previously recovered for re-use.

6/ Beginning with 1940, the figures relate only to new denatured alcohol, and exclude previously recovered alcohol which was re-used.

Source: Alcohol Tax Unit, Bureau of Internal Revenue
Treasury Department

Table M
ETHYL ALCOHOL, 190 PROOF, NEW YORK AVERAGE MONTHLY WHOLESALE PRICE,
TAX FREE, TANK CAR LOTS, JANUARY 1935-OCTOBER 1950.
(CENTS PER GALLON)

Year	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1935	28.5	28.5	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0
1936	29.2	27.0	27.0	27.0	27.0	27.0	27.0	27.0	27.0	27.0	27.0	25.5
1937	25.0	25.0	25.0	25.0	25.0	25.5	26.0	26.0	26.0	26.0	26.0	26.0
1938	26.0	26.0	24.2	24.0	24.0	24.0	23.5	22.0	22.0	22.8	23.0	22.5
1939	20.8	20.0	19.6	18.5	18.5	18.5	18.5	18.5	18.5	20.1	20.5	20.5
1940	20.5	20.5	20.5	20.5	20.5	20.5	20.5	22.5	22.5	23.5	23.5	24.5
1941	24.5	24.5	24.5	25.5	26.5	26.5	26.5	26.5	26.5	26.5	26.5	26.5
1942	52.0 <u>1/</u>	52.0	52.0	52.0	52.0	52.0	52.0	52.0	52.0	52.0	52.0	52.0
1943	52.0	52.0	50.0	50.0	50.0	50.0	50.0	50.0	50.0	50.0	50.0	50.0
1944	50.0	50.0	50.0	50.0	50.0	50.0	50.0	50.0	50.0	50.0	50.0	50.0
1945	50.0	50.0	50.0	50.0	50.0	50.0	50.0	50.0	50.0	50.5	52.7	55.5
1946	55.5	55.5	55.5	55.5	55.5	55.5	55.5	55.5	55.5	55.5	76.9 <u>1/</u>	84.0
1947	84.0	84.0	84.0	88.0	98.0	98.0	98.0	87.0	87.0	90.6	96.0	94.9 <u>2/</u>
1948	94.5	94.5	93.0	91.0	88.0	86.5	85.0	77.5	75.0	75.0	62.5	46.2
1949	38.5	24.5	21.0	21.0	21.0	21.0	29.0	29.0	29.0	29.0	29.0	29.0
1950	29.0	29.0	32.0	35.0	35.0	37.0	39.0	39.0	45.0 <u>45.0</u> <u>3/</u>	85.0 <u>85.0</u> <u>4/</u>		

Source: Oil, Paint, and Drug Reporter

1/ Beginning and ending of price controls.

2/ In the second week of December the price quotation changed from a price "at works" to a price "delivered east of the Mississippi River."

3/ Represents a range as reported on September 28, 1950. 4/ Non-contract alcohol price, October 13, 1950.

Table N
PERCENT OF TOTAL MOLASSES SUPPLIED TO THE U.S. MAINLAND
BY PRODUCING AREAS, FISCAL YEARS ENDED JUNE 30, 1935-50.

Source of Supply	1935	1936	1937	1938	1939	1940	1941	1942	1943	1944	1945	1946	1947	1948	1949	1950
Mainland Sources																
Mainland Cane	4.0	6.9	6.8	8.9	12.1	8.3	4.4	5.4	9.3	7.3	9.0	11.8	9.0	6.4	9.4	8.0
Beet	6.4	7.5	5.5	7.0	8.1	6.4	5.5	4.5	9.2	5.1	9.3	15.1	15.3	8.4	7.3	7.2
Refiners' Blackstrap	7.6	8.5	6.4	6.8	8.8	7.3	6.6	5.9	8.0	7.2	9.3	9.3	9.3	7.9	7.8	6.8
Citrus	-	-	-	-	-	-	-	-	-	0.5	0.9	2.9	3.5	2.7	1.7	2.6
Hydrol	2.2	3.0	2.2	2.6	3.3	2.9	3.2	3.8	6.1	3.6	4.2	5.7	6.4	4.0	4.1	3.8
Total																
Mainland Supplies	20.2	25.9	20.9	25.3	32.3	24.9	19.7	19.6	32.6	23.7	32.7	44.8	43.5	29.4	30.3	28.4
Offshore & Foreign Sources																
Cuba	-	-	54.3	43.1	40.1	54.7	57.6	61.4	47.6	54.8	44.8	24.7	22.2	37.3	37.1	41.8
Dominican Republic	-	-	5.0	4.5	6.6	5.2	7.6	3.5	0.5	5.6	7.6	4.9	7.8	4.5	4.0	3.6
Dutch East Indies	-	-	2.5	5.0	1.8	-	-	-	-	-	-	-	-	-	-	-
Mexico	-	-	-	-	0.4	1.0	1.5	1.6	1.6	0.4	-	2.0	5.4	7.0	6.6	4.4
Hawaii	-	-	4.7	9.4	7.5	7.4	8.5	8.0	15.6	9.6	9.8	14.0	10.4	10.3	9.6	9.2
Puerto Rico	-	-	5.7	7.7	6.2	5.3	3.6	4.8	1.1	4.2	3.5	7.3	8.1	9.7	9.6	9.0
Other	-	-	6.9	5.0	5.1	1.5	1.5	1.1	1.0	1.7	1.6	2.3	2.6	1.8	2.8	3.6
Total Imports & Inshipments	79.8	74.1	79.1	74.7	67.7	75.1	80.3	80.4	67.4	76.3	67.3	55.2	56.5	70.6	69.7	71.6
Total Market Supplies	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Source: Table D

Table O

INSHIPMENTS OF INDUSTRIAL MOLASSES TO THE U.S. MAINLAND EXPRESSED
AS A PERCENT OF TOTAL ANNUAL PRODUCTION IN CUBA, PUERTO RICO,
AND HAWAII, CALENDAR YEARS 1935-49 AND JANUARY-JUNE 1950.

Year	Inshipments to the United States Mainland			
	Cuba	Puerto Rico	Hawaii	All Areas
1935	96.9	19.2	67.0	88.5
1936	75.7	62.2	45.7	69.9
1937	66.3	67.9	68.4	66.7
1938	56.0	41.4	58.3	54.3
1939	64.0	61.0	64.8	63.8
1940	78.8	59.4	70.2	75.7
1941	79.3	45.9	92.1	78.0
1942	58.4	23.5	78.4	56.4
1943	104.1	24.9	98.8	89.1
1944	55.0	62.5	82.6	57.8
1945	58.3	40.3	82.5	59.4
1946	24.8	45.0	89.2	34.9
1947	35.2	62.9	76.8	43.8
1948	41.9	81.8	102.2	53.1
1949	55.5	73.5	92.3	62.5
1950 (Jan.- June)	58.3	43.9	95.6	58.3

Source: Table E